THE new number of the Journal of the Anthropological Institute contains a striking paper by Dr. George Harley, in which he attempts to show that the tendency of civilization is decidedly to lower the bodily recuperative powers of human beings. Another interesting paper—by Mr. G. L. Gomme—is on the evidence for Mr. McLennan's theory of the primitive human horde.

MESSRS. S. WIGG AND SON, Adelaide, are issuing a work on "Common Native Insects of South Australia," by Mr. J. G. O. Tepper. It is intended to serve as a popular guide to South Australian entomology. Part I. relates to Coleoptera.

A PAPER containing a list of the mammals of Manitoba, by Mr. Ernest E. Thompson, has been reprinted from the Transactions of the Manitoba Scientific and Historical Society. It consists chiefly of the author's field notes.

A CORRESPONDENT writes from St. Petersburg that tigers have been encountered this autumn in parts of Asiatic and European Russia where they have never been found before. Some time ago one of these beasts was captured near Wladiwostock, in Siberia, and another in the government of the Caucasus, close to the Black Sea. Both animals have been conveyed to St. Petersburg alive.

A NORWEGIAN astronomer has collected seventeen reports from various parts of Norway respecting the great meteor seen in that country on the evening of September 18, no doubt the largest meteor seen in Norway in recent times. These reports show that the meteor was seen as far north as Hamar, in Central Norway, and as far south as the towns of Fredrikshald and Skien, on opposite sides of the Christiania Fjord, the capital and neighbourhood appearing to be in the centre of its track. Its light was everywhere magnificent, having the appearance of a sudden blaze of electric light. The reports from Drammen and neighbourhood, as well as those from the province of Smaalenene, on the opposite side of the Christiania Fjord, maintain that the bursting of the meteor, which took place within this area, was accompanied by a loud report; but the astronomer in question is of opinion that this belief is due to some freak of the imagination, as the track of the meteor, covering such a vast area of land, must have lain too high in the atmosphere for any sound to be heard. He calculates from the reports to hand that the bursting of the meteor occurred at an altitude of about 6000 feet, and he thinks that even this figure may be safely doubled, as no doubt the meteor was seen far north and south of the places whence reports have been received.

THE Aino idea of an eclipse is described by the well-known student of Aino language and manners, Mr. Bachelor, in a recent number of the *Japan Weekly Mail*. Mr. Bachelor specially observed the conduct of the Ainos during the recent eclipse. The Aino, he says, is a very matter-of-fact person, and is not usually carried away by the imagination. On being shown the eclipse through a smoked glass, the Aino cried out that the sun was fainting away and dying. A silence then ensued, and from time to time an exclamation of surprise or fear was to be heard; it was evident the fear was that the sun would die away and never revive. They brought water and sprinkled it upwards towards the sun (as they would do if a human being were expiring), crying at the same time, "O god, we revive thee! O god, we revive thee!" Some squirted the water upwards with their mouths, others threw it with their hands, others, again, used the common besom or willow-branches, the latter being supposed to be specially efficacious. A few, especially women and girls, sat down with their heads hidden between their knees, as if silently expecting some dreadful calamity to suddenly befall them. They have no theories with regard to eclipses, but their traditions run like this:—"When my father was a child, he heard his old grandfather say that his grandfather saw a total eclipse of the sun. The earth became quite dark, and shadows could not be seen; the birds went to roost, and the dogs began to howl. The black, dead sun shot out tongues of fire and lightning from its sides, and the stars shone brightly. Then the sun began to return to life, and the faces of the people wore an aspect of death; and, as the sun gradually came to life, then men began to live again."

THE first meeting of the one hundred and thirty fourth session of the Society of Arts will be held on Wednesday, November 16, when the opening address will be delivered by Sir Douglas Galton, Chairman of the Council. Previous to Christmas there will be four ordinary meetings, in addition to the opening meeting. For these meetings the following arrangements have been made:—November 23, Prof. Silvanus P. Thompson, "The Mercurial Air-pump;" November 30, Mr. J. B. Hannay, "Economical Illumination from Waste Oils;" December 7, Mr. P. L. Simmonds, "The Chemistry, Commerce, and Uses of Eggs of Various Kinds;" December 14, Sir Philip Magnus, "Commercial Education." During the session there will be six courses of Cantor Lectures—"The Elements of Architectural Design," by Mr. H. H. Statham; "Yeast, its Morphology and Culture," by Mr. A. Gordon Salamon; "The Modern Microscope" (being a continuation of the recent course of Cantor Lectures on the "Microscope"), by Mr. John Mayall, Jun.; "Alloys," by Prof. W. Chandler Roberts-Austen, F.R.S.; "Milk Supply and Butter and Cheese Making," by Mr. Richard Bannister; "The Decoration and Illustration of Books," by Mr. Walter Crane. Two juvenile lectures on "The Application of Electricity to Lighting and Working," by Mr. William Henry Preece, F.R.S., will be given during the Christmas holidays.

THE additions to the Zoological Society's Gardens during the past week include a Campbell's Monkey (*Cercopithecus campbelli*) from West Africa, presented by Mr. E. B. Mitford; a Weeper Capuchin (*Cebus capucinus*) from Brazil, presented by Mr. C. N. Skeffington; a Raccoon-like Dog (*Canis procynides*) from China, presented by Mr. W. T. Manger; an Indian Antelope (*Antilope cervicapra*) from India, presented by Mrs. M. V. Charrington; a Leopard (*Felis pardus*) from Ceylon, presented by the Dissawe of Tamankadua Dulewa Adijur; a Common Squirrel (*Sciurus vulgaris*), British, presented by Mr. A. Townsend; a Naked-footed Owlet (*Athene noctua*), European, presented by Mr. R. E. Holding; a Laughing Kingfisher (*Dacelo gigantea*) from Australia, presented by Mr. G. E. Frodsham; two Larger Hill-Mynahs (*Gracula intermedia*) from Northern India, presented respectively by Mr. J. M. Cook and Mrs. J. S. Beale; a Gray-headed Porphyrio (*Porphyrio poliocephalus*) from India, presented by Lady Morshed; a West African Python (*Python sebæ*) from West Africa, a Common Boa (*Boa constrictor*) from South America, two Testaceous Snakes (*Ptyas testacea*), an Alleghany Snake (*Coluber alleghaniensis*) from North America, deposited; six Mocassin Snakes (*Tripidonotus fasciatus*) born in the Gardens.

OUR ASTRONOMICAL COLUMN

THE VARIABLE STAR U OPHIUCHI.—Mr. S. C. Chandler, Jun., who first determined the true period of this star, of all variables the one with shortest period and most rapid fluctuations of light, has brought together, in No. 161 of *Gould's Astronomical Journal*, all the observations of magnitude of this star available. Of these, one made by Schjellerup on June 7, 1863, is of special value, as it was evidently made near the time of minimum, and at an interval of nearly 8000 periods from the principal epoch; whilst a series made at Cordoba in 1871 and 1872 has proved of very high importance. The discussion of these various observations show that it is exceedingly probable that the period has undergone a slight shortening; all the data being well reconciled by the assumption that each period is

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shorter than the preceding one by 0·0004s. The corrected elements of the star will therefore be as follows:—

1884 January 1, 0h. 54m. 43·6s. Paris M.T. + 20h. 7m. 41·6s. (E – 1070) – 0·0002s. E.

THE NEW ALGOL-VARIABLE, Y CYGNI.—In the same number of *Gould's Astronomical Journal* Mr. Sawyer states that he has obtained observations of this star which render it probable that the true period is 1d. 12h. ±, or half the period which Mr. Chandler had adopted for it (see NATURE, vol. xxxvi. p. 377).

OLBERS' COMET, 1887.—The following ephemeris is in continuation of that given in NATURE, vol. xxxvi. p. 588:—

Ephemeris for Berlin Midnight.

1887.	R.A. h. m. s.	Decl. ° ′	Log *r*.	Log Δ.	Brightness.
Nov. 11	14 24 15	13 59·0 N.	0·1152	0·3037	1·20
13	14 31 8	13 15·0			
15	14 37 51	12 31·6	0·1232	0·3098	1·12
17	14 44 25	11 48·9			
19	14 50 51	11 6·7	0·1317	0·3162	1·05
21	14 57 9	10 25·3			
23	15 3 18	9 44·7	0·1406	0·3226	0·98
25	15 9 20	9 50·0			
27	15 15 12	8 26·0 N.	0·1499	0·3291	0·91

The brightness on August 27 is taken as unity.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 NOVEMBER 13–19.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on November 13

Sun rises, 7h. 16m.; souths, 11h. 44m. 23·6s.; sets, 16h. 12m.: right asc. on meridian, 15h. 13·5m.; decl. 17° 58′ S. Sidereal Time at Sunset, 19h. 42m.

Moon (New on November 15, 8h.) rises, 4h. 13m.; souths, 10h. 6m.; sets, 15h. 46m.: right asc. on meridian, 13h. 34·4m.; decl. 4° 48′ S.

Planet.	Rises. h. m.	Souths. h. m.	Sets. h. m.	Right asc. and declination on meridian. h. m.	 ° ′
Mercury	8 16	12 23	16 30	15 52·4	21 13 S.
Venus	2 56	8 52	14 48	12 20·9	1 39 S.
Mars	1 12	7 48	14 24	11 16·3	6 30 N.
Jupiter	6 52	11 31	16 10	15 0·5	16 10 S.
Saturn	21 21*	5 8	12 55	8 36·0	18 59 N.
Uranus	3 52	9 28	15 4	12 56·8	5 23 S.
Neptune	16 40*	0 21	8 2	3 48·3	18 13 N.

* Indicates that the rising is that of the preceding evening.

Occultations of Stars by the Moon (visible at Greenwich).

Nov.	Star.	Mag.	Disap. h. m.	Reap. h. m.	Corresponding angles from vertex to right for inverted image. ° °
18	33 Sagittarii	5	16 23	16 50	38 1
18	ξ^2 Sagittarii	4	18 2	19 5	103 330

Nov.	h.	
17	19	Mercury in inferior conjunction with the Sun.
18	7	Saturn stationary.

Variable Stars.

Star.	R.A. h. m.	Decl. ° ′		h. m.	
U Cephei	0 52·3	81 16 N.	Nov. 17,	2 8	*m*
Algol	3 0·8	40 31 N.	,, 16,	1 3	*m*
			,, 18,	21 52	*m*
S Cancri	8 37·5	19 26 N.	,, 14,	1 26	*m*
R Virginis	12 32·8	7 37 N.	,, 14,		*M*
U Ophiuchi	17 10·8	1 20 N.	,, 13,	0 3	*m*
			and at intervals of	20 8	
β Lyræ	18 45·9	33 14 N.	Nov. 15,	19 0	m_2
			,, 19,	0 0	*M*
R Lyræ	18 51·9	43 48 N.	,, 16,		*m*
δ Cephei	22 25·0	57 50 N.	,, 13,	21 0	*m*

M signifies maximum; *m* minimum; m_2 secondary minimum.

Meteor-Showers.

	R.A. °	Decl. °	
From Lynx	125	40 N.	Swift; streaks.
Near κ Leonis	142	27 N.	Very swift.
Near θ Ursæ Majoris.	143	49 N.	Very swift.
The Leonids	149	22 N.	Swift; streaks.
Near ξ Ursæ Majoris.	166	32 N.	Swift; streaks.

GEOGRAPHICAL NOTES.

THE November number of the *Scottish Geographical Magazine* contains an admirable paper by Mr. John Murray, on "Some Recent Deep-sea Observations in the Indian Ocean." Mr. W. W. Blair, C.E., contributes a useful paper on the "Cold Lakes of New Zealand." Prof. Mohn sends a list of the highest peaks in Northern Europe, with their heights from the latest determinations. They are, with heights in feet:—Galdhoppigen, South Norway, 8399; Glitter Tind, 8379; Snehætten, 7566; Oræfajökull, 6427; Sulitelma, Northern Norway, 6178; Petermann's Spitze, East Greenland, 11,418; Beerenberg, Jan Mayen, 8350; Mount Misery, Bear Island, 1785; Hornsund Tind, Spitzbergen, 4560; Richthofen Mount, Franz Josef Land, 5184. Of these mountains two are volcanic, Oræfajökull and Beerenberg.

THE new number (9) of the *Mittheilungen* of the Vienna Geographical Society contains a summary of our knowledge of the physical geography of the East Asiatic waters (the Western Pacific and its offshoots)—currents, temperatures, &c.—by Lieut. Adolf Glockner.

IN the September number of the *Bulletin* of the American Geographical Society, Mr. R. E. Peary gives a detailed account of his journey, in the summer and autumn of last year, into the interior of Greenland. He entered in the neighbourhood of Disco Island, considerably further north than the starting-point chosen by Nordenskjöld for his expedition. Mr. Peary's experiences were somewhat similar to those of Nordenskjöld. His course throughout the journey was due east. He only reached 100 miles from the edge of the ice-blink or interior ice, his highest elevation being 7525 feet. Mr. Peary sums up his observations of the character of the interior ice. The coastline shows a great diversity of features, dependent upon the altitude, the season, and the elevation and configuration of the adjacent mountains. Whenever the ice projects down a valley in a long tongue or stream, the edges contract and shrink away from the warmer rocks on each side, leaving a deep cañon between, usually occupied by a glacier; and the upper surfaces, disintegrated by the reflected heat from the mountains above, and shattered by the daily change of temperature more perhaps than by the forward flow, presents a chaotic labyrinth of crevasses, gullies, and rugged pinnacles, increasing in magnitude in direct proportion to the length of the tongue and its approach to the sea-level. As to the features of the interior beyond the coast-line, the surface of the "ice-blink" near the margin is a succession of rounded hummocks, steepest and highest on their landward sides, which are sometimes precipitous. Further in these hummocks merge into long flat swells, which in turn decrease in height towards the interior, until at last a flat gently rising plain is reached, which doubtless becomes ultimately level. In passing from the margin of the ice-blink to the remote interior, from one to five distinct zones may be noted, the number and width varying with the season, the latitude, and the elevation. In winter the entire surface is undoubtedly covered with a deep unbroken layer of fine dry snow. Late in the spring the warmth of the sun at midday softens the surface of the snow, along the land borders of the ice, and this freezes at night, forming a light crust. Gradually this crust extends up the interior, and with the advance of the season the snow along the border of the "ice-blink" becomes saturated with water. A little later the zone of slush follows the zone of crust into the interior, the snow along the border of the ice-blink melts entirely, forming pools in the depressions, and streams which cut deep gullies in the ice; water-cavities form; old crevasses open, and new ones appear. This zone rapidly widens, and extends into the interior in the footsteps of the others, and behind it the immediate border of the ice gets ragged and soiled; pebbles, boulders, and moraines crop out of its melting surface, and by the end of the Arctic summer it is disintegrated and shattered by the heat, and eroded by the streams, into impassable roughness. Mr. Peary

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